**TARMIIfp Annual Report**

FY (July 2012-June 2013)

School Capacity and Innovation Program (SCIP)

## Project Title: TARMII*fp*

Teacher Assessment Resources for Monitoring and Improving Instruction in the Foundation Phase

**HSRC**
Human Sciences
Research Council

# Table of Contents

# 1. Background and introduction

In a number of educational systems around the world, technology is seen as a significant instrument in improving the quality of education often through innovation programs intended to build school capacity in teaching and assessment practices. In South Africa, funding from the then Department of Education led to the development of a software, TARMII—Teacher Assessment Resources for Monitoring and Improving Instruction. TARMII was developed for teachers in the intermediate phase (grades 4, 5 and 6) to help them develop formative assessment instruments and reports to diagnose learning successes and failures. In response to the School Capacity and Innovation Program's call for proven, innovative models to expand, refine and rigorously test intervention, the HSRC sought to extend TARMII to the foundation phase (Grades 1, 2 and 3) in a project referred to as TARMIIfp. The TARMIIfp project involves the development of fully functional computer software known as TARMIIfp with literacy Home Language assessment items for foundation phase teachers and to assess the impact of the use of the TARMIIfp software on teacher classroom assessment practices and on learner achievement in literacy.

The focus in the first year of the project was on project advocacy in the selected provinces, setting up Steering Committees, development of the TARMIIfp software, development of assessment activities/items in English and versioning of the same into other South African official languages, training teachers in assessment and basic ICT skills.

This report gives an overview of the expected project deliverables over the first year including activities undertaken in the fourth quarter.

# 2. Main deliverables for Year 1

The main deliverables over the past year included:
   a) The development of the software—the TARMIIfp,
   b) The development of literacy assessment test items and the versioning thereof
   c) The input of the test items into the computer software,
   d) Training of teachers on assessment and on the basic ICT skills

## 2.1 The development of the TARMIIfp software
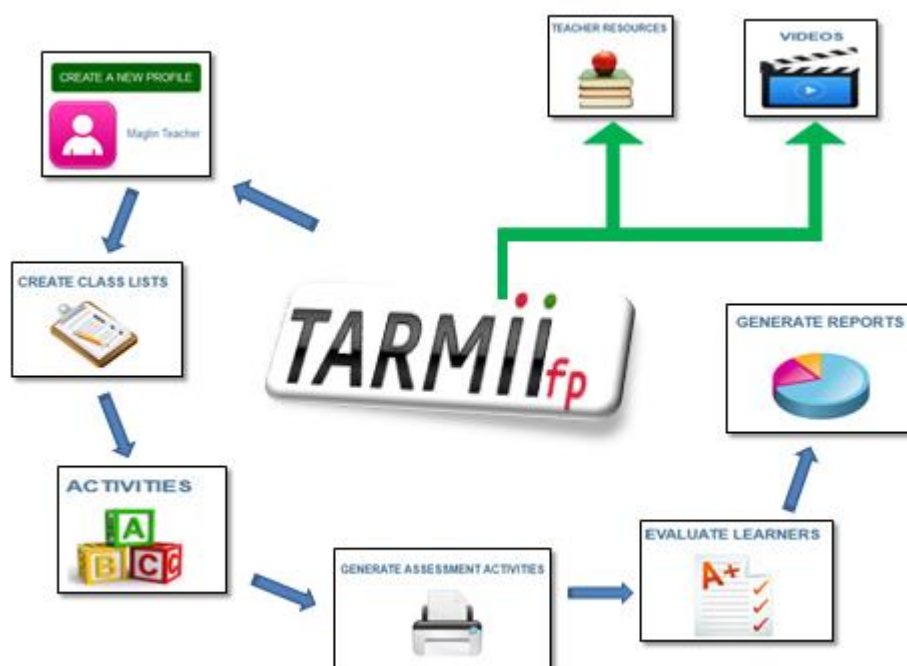


All software modules were completed in the first year of the project. The software includes among others a data collection facility that allows the HSRC to monitor teacher usage and therefore identify teachers that need support. In addition to this, the software has functions that allow trained teachers to generate assessment activities for their learners, assess and generate reports on the performance learner performance, create their own assessment activities and communicate their views on the existing activities within the software. In addition to these features, we have included 33 teacher pedagogic clips and 176 static teacher resources. These clips contain short clips that guide, inform and support teachers on specific and general strategies in the Foundation Phase. They cover areas of sentence construction, writing and speaking skills. These resources can be used by teachers to enhance their teaching or to support their lesson. Resources include stories, poems, alphabet charts and pictures (*see attached samples of resources*). We have also completed a draft TARMIIfp Teacher User Manual (*see attached manual*).

### 2.1.1 Field testing of TARMIIfp software

The functionality of the TARMIIfp software was tested at a workshop for District Officials held at the HSRC in Pretoria on the 11th April 2013 where a total of 21 District officials from Free State, Limpopo and Mpumalanga, North-West used the system and gave feedback on the functionality and content of the system.

### 2.1.2 The input of assessment items into the TARMIIfp software

During April 2013, the HSRC engaged six contract workers from Amaqhawe Consulting to start the process of uploading existing English, Tshivenda, IsiXhosa, Sepedi, Setswana and Sesotho assessment activities items onto the system. The process of uploading items would continue in the first quarter of the second year as versioning continues.

## 3. The development of literacy assessment items and versioning

In this component of the project, the HSRC is expected to develop a thousand English literacy items per grade. Table 1 shows the number of assessment activities developed per grade. The process of mapping existing items and developing new English assessment activities occurred simultaneously. The writers and developers of assessment items/activities had to map and produce new assessment activities in the four Language Components: namely, Listening and Speaking, Reading, Phonics, and Writing) as specified in the CAPS document.

**Table 1: The number of English assessment activities developed by the end of June 2013**

| Grade | Number of assessment activities |
|---|---|
| 1 | 1000 |
| 2 | 1030 |
| 3 | 1668 |

The process of the development of English items was followed in a staggered fashion, by versioning of the English assessment activities into other official languages, namely, Setswana, IsiZulu, Sepedi, IsiNdebele, IsiXhosa, Tshivenda, Sesotho and

Tsonga. Versioning of assessment activities into the remaining two languages, namely; Afrikaans and SiSwati will commence in the first quarter of the second year.

## 4. Training of district officials and teachers

These training sessions happened in the Free State; Limpopo and North-West provinces during the fourth quarter *(see attached pictures)*.

### 4.1 Results of the basic ICT baseline

In preparation for the basic ICT training in Limpopo and North-West provinces, teachers responded to a baseline instrument to determine their level of computer literacy. In Limpopo, 59 of the 60 teachers responded to the questionnaire and in the North-West, all 60 teachers completed the questionnaire. The results showed that 93% of teachers in Limpopo and 69% of North-West teachers did not have the general windows skills and other technical skills. Ninety percent of teachers in Limpopo and 74% of North-West teachers have never used excel. Regarding the use of internet, 95% of teachers from Limpopo and 78% of North-West teachers had no internet knowledge. The results were shared with the District Officials and also informed the instructional strategies designed for the ICT workshops.

### 4.2 Assessment and Basic ICT training sessions

The assessment training of teachers and district officials in Limpopo occurred and was reported in the third quarter while that of the Free-State and North-West occurred during the fourth quarter. The training of teachers in the Free-State took place on the 13th & 14th of May 2013 and that of the North-West from 14-16 May 2013. Training sessions were conducted during school hours and were facilitated by McMillan Teacher campus. On completion of the three day training, teachers were awarded with certificates of attendance.

The training of teachers and district officials from Limpopo and North-West provinces on the  basic ICT skills occurred during the fourth quarter reporting period. Training in the North-West happened from the 23rd to the 25th of April 2013, while Limpopo teachers had their training from 6-9 May 2013. Training in both provinces were facilitated by the eLearning District Officials and monitored by the HSRC team. The HSRC developed a training manual which was handed to teachers as a resource.

Table 2 on the next page shows the number of District Officials and Teachers trained during the said period.

*Table 2: Number of District Officials and Teachers trained*

| Province | District Officials & Foundation Phase Teachers | Assessment | Basic ICT |
|---|---|---|---|
| North-West (Bojanala District) | District | 7 | 4 |
| | Teachers | 67 | 44 |
| Limpopo (Vhembe District) | District | 5 | 4 |
| | Teachers | 62 | 54 |
| Free State (Thabo Mofutsanyana District) | District | 7 | * |
| | Teachers | 60 | * |
| Mpumalanga (Nkangala District) | District | * | * |
| | Teachers | * | * |
| Total | | 208 | 106 |

*Training scheduled in the first quarter of the second year

In Mpumalanga, training in assessment and basic ICT will take place in the first quarter of the second year. Assessment training is scheduled for 22, 23 and 24 July 2013 at Bekezela Primary school in Weldevrede circuit. In the Free State, basic ICT training is scheduled to take place from the 1st to the 4th of July 2013.

## 5. Advocacy meetings

Various advocacy meetings at different levels of the Districts participating in the project occurred during the first three quarters of the year, July 2012 to March 2013. In the fourth quarter, advocacy meetings happened in Mpumalanga and the Free State. In Mpumalanga, the teacher advocacy meetings planned to take place from 15 to 18 April 2013 were suspended and deferred to a later date due to the South African Democratic Teachers Union's (SADTU) protest action. Subsequent to the end of the protest action, four teacher-advocacy meetings were held on 27, 28, 29 and 30 May in the four participating circuits, namely, Libangeni, Weltevrede, Tweefonten and Siyabuswa. During the meetings teachers were introduced to the TARMIIfp project and instruments for baseline data collection were also administered.

In the Free State, the first advocacy meeting with the Thabo Mofutsanyana District represented by the Director, Mrs Tshabalala and other officials took place on the 9th of April in the Thabo Mofutsanyana district. The head office was represented by Chief Director, Mr Mthombeni. The HSRC was represented by Drs Nolutho Diko and George Frempong and Mr Matthews Makgamatha. The District Office indicated that the goal of the TARMIIfp resonated with their aim as discussions are underway on how teaching and learning can be improved based through the use the Annual National Assessment results. The Foundation Phase officials contended that they would like to peruse training materials before they are presented to the teachers to determine compliance to the new curriculum. It was decided that TARMIIfp project activities would form part of the district plan. Following this meeting, an advocacy meeting with principals from both the experimental and control schools took place on the 23rd of April. The handing out of baseline instruments occurred at the same meeting.

## 6. Steering Committee meetings

The North-West had the third Steering Committee meeting on the 19th of June 2013. Five of the eight SC members, that is, two Circuit Managers, a Senior Education Specialist, ICT official and a representative from the HSRC attended this meeting. Issues discussed included feedback on the assessment and basic ICT training and training dates for TARMIIfp software. It was agreed that the official handing over of laptops to schools would take place on the 15th August at Laerskool Brits, followed by the training of teachers on the TARMIIfp software on 19th, 20th and 21st of August 2013 at ICT venues in Madibeng and Letlhabile circuits.

In Mpumalanga, a steering committee meeting was held on 21st June 2013. Regrettably only four of the eight district officials attended the meeting. The HSRC, represented by Dr George Frempong and Mr Makgamatha used the meeting as a platform to urge the district to put more effort in positioning itself to maximise its uptake of the TARMIIfp project and also to ensure that this project is strategically, meaningfully and seamlessly integrated into the district's operational plans and processes. It is our opinion that such an approach would go a long way in making the

TARMIIfp project part of what teachers do in school rather being seen as an added responsibility or burden.

## 7. Pre-intervention data collection

The pre-intervention data collection in the Free-State and Mpumalanga commenced in the fourth quarter. Data collection entailed the administration of teacher questionnaire, school questionnaire and the learner home background questionnaires together with the respective consent forms.  With regards to the administration of the teacher questionnaire, each school had to select *three teachers* (one from each grade) to participate in the study. This questionnaire would then be completed by a total of *120 teachers* from the experimental and control schools.  The school questionnaire, together with the consent forms was to be completed by 40 school principals or deputy principals of both experimental and control schools. The learner and home background questionnaire had to be completed by a total of 30 (i.e. 10 form each grade) randomly selected parents of learners from grades 1, 2 & 3. The return of questionnaires from all four provinces is in-going. However, we have commenced with data capturing of the instruments received.

## 8. Achievements

The project has achieved its major milestones, i.e. having fully functional TARMIIfp software and the development of over three thousand English Home Language assessment activities.

The success and achievements of the first year would not have been possible without the dedication and commitment of the district officials from the Free State, Limpopo and the North-West provinces. District Officials from Bojanala district in the North-West, the Vhembe district in Limpopo and Thabo Mofutsanyana district in the Free State have taken ownership of the project. In the fourth quarter, the basic ICT training was facilitated by the District Officials and they undertook to train participating teachers on the TARMIIfp software and to continue monitoring implementation of the TARMIIfp in the participating schools. Furthermore, teachers and curriculum

advisors from these three districts have been involved in the versioning of assessment activities into the languages spoken in the provinces.

## 9. Challenges, constraints and lessons learnt

The development of assessment items/activities was a major challenge. We had undertaken to contract teachers and curriculum advisors to develop CAPS aligned literacy assessment activities for teachers in the Foundation Phase.  In our engagements with various Foundation Phase teachers, we discovered that each teacher had a different interpretation of the CAPS document.  To counter this, the HSRC team sought to interact and consult with more teachers, district officials and other education allied professionals outside the school systems to get a good understanding of what is expected of teachers to implement the CAPS successfully in the classroom. This process was helpful in giving insights into CAPS implementation and this information was shared with assessment item writers.

We contracted three teachers, one for each grade, to develop English Home Language assessment items. Although the three contracted teachers had previous experience with item development, they were not adequately skilled to carry out the assignment. We realised that the ability to develop good assessment activities is a highly specialised skill which few individual teachers possess. In order to ensure that the TARMIIfp items were of good quality, the HSRC research team had to employ an internal quality assurance mechanism, wherein, each of the three teachers who maps and writes assessment items would have their work first checked by the HSRC researcher(s) and commented on. The corrected version would then be checked and moderated by the other two writers.

The initial time-frame for mapping and developing assessment activities was congested. Time-frames proved to be too tight for practising teachers who had to juggle between their teaching job and writing items after hours, during weekends or during school holidays. The retired member of the writing team could also not cope with the set time-frames and abandoned the task.  These challenges resulted in delays

in the delivery of the assessment activities within the time-frames set in the Annual Work Plan.

The HSRC believes that in order to ensure sustainability of the project, there has to be synergy between TARMIIfp activities and district/circuits/schools operational plans. However, this is not the case in Mpumalanga province as the Nkangala district has not fully integrated TARMIIfp into district operational plans. The HSRC is addressing this matter through the District Director's office.

## 10. Concluding remarks

One of the major accomplishments of the TARMIfp project, so far, is the enthusiasm that we have managed to develop among district officials involved in the project.  In our advocacy meetings, we have always emphasized the need for both the HSRC team and the participating districts to have clear understanding of the TARMIIfp project—a development of a software and assessment activities for the purpose of improving teaching and learning. We recognise that, for the TARMIIfp project to succeed we would need the support and cooperation of all research participants, especially, the district officials and teachers involved in the project. Most of the districts have taken our advice to integrate TARMIIfp in their school improvement plans.  These districts see TARMIIfp project as an important component of their support system for teachers to use technology to improve teaching and learning. We expect that this development would lead to the sustainability of the TARMIIfp project in these districts.  We intend to document our research engagements with districts for the purpose of developing a model and understanding of how technology for education improvement in South Africa should evolve.